

# Turn-taking Contingent Reactivity as an Ostensive Cue For Attributing Communicative Agency

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Recent experimental and cognitive neuroscience research on infant cognition generated a rich body of intriguing evidence about the ‘social-mind design’ of the preverbal human infant. New eye-tracing and brain imaging methods now provide a variety of implicit tasks and measures of the automatic and preverbal functioning of several core cognitive mechanisms dedicated to the understanding (and learning from) the intentional actions of other social agents around us.

In a series of studies within the framework of Natural Pedagogy theory (Csibra & Gergely, 2009, 2011) we have demonstrated human infants’ species-unique preparedness to recognize and interpret non-verbal *communicative actions* that are ostensively addressed to them. Ostensive communication evolved as a species-unique form of epistemic cooperation in humans to guide the addressee to attend to and obtain relevant and new information about referents. Infants are prepared to receive relevant information from others’ ostensive communications in several ways: A) they show special sensitivity to ostensive signals (such as eye contact, infant-directed speech, or infant-induced contingent reactivity) that induce attribution of communicative agency and a *communicative intention* to manifest new and relevant information (the *informative intention*) for their addressee; B) Ostensive cues induce an expectation of referent identification and subsequent orientational behaviors (such as gaze-shift, pointing, or orientational alignment) are interpreted as referential signals to identify the intended referent; and C) ostensive signals induce in infants built-in presumptions of relevance, genericity, and sharedness of the manifested knowledge content.

In this talk I’ll present new evidence from eye-tracing studies to support the proposal that *Turn-taking Contingent Reactivity at a Distance* is a) one of the basic ostensive cues of communicative agency that b) induce the attribution of communicative and referential intentions and c) a presumptions of relevance and genericity of the ostensively manifested properties of the referent kind. I’ll also present some preliminary results from eye-tracking and pupil dilation measures showing that sensitivity to Contingent Distal Reactivity as an ostensive cue of communication is impaired in *autistic children*.

Finally, I’ll summarize new findings demonstrating similar sensitivity in *dogs* to Turn-taking Contingent Reactivity as an ostensive cue triggering the attribution of referential intentions.

